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Dear Lester:

I again compliment you on your efforts to bring together some acceptable solutions to the complex problems of the Central Valley Basin. If CALFED can't bring to conclusion a fix to the Delta and a reasonable water management program for the Basin (to some extent for the State), the State, in my opinion, faces a very spooky road ahead.

My intent was to make further review of the Draft Alternatives Report and prepare detailed comments but Steve told us he needed the comments by Friday. I think your schedule is unrealistic for the complexity of the issues and yet I want to see a solution, like yesterday, even if only an initial step. So the following are quick and dirty observations following your workshop Tuesday. I realize that your process is largely driven by agency personnel who, for the most part, are regulators. Planning by regulation is seldom effective and in many cases quite counter productive (in spite of objectives). I have finally observed that there are few of the far sighted positive thinkers left who did the conceptual planning, design, and initial operations of our existing reservoirs. (See my paper to the Water Commission of October 6, 1995.) That type of planner is needed to address the environmental issues today.

The basic remaining undeveloped water supply in the Central Valley is in the Sacramento River Basin. For example, over 1.5 MAF flowed from the unregulated Cottonwood Creek Water Shed in water year 1995. Shasta spilled over 1 MAF in the spring of 1993 and yet significant deficiencies were experienced that season. Shasta and Oroville reservoirs have a active storage to average annual inflow of about .5 and .7 respectively. Because of new regulations, Shasta's active storage now is only 2.6 MAF - totally inadequate. The average annual flows are about 6 MAF and 4.25 MAF at Shasta and Oroville respectively. So any further modifications without significant substitute storage can only exacerbate, not improve either the environmental concerns or reliability of our water supply. Under existing conditions the Sacramento River is operated as a canal and operational options are severely restricted.

I have no faith in any of the Delta Storage concepts. The water is in a poor place to do any good for most of our needs and I don't think you can trust the security of any of the levees. I would also fear quality problems.

I came away from the workshop with two impressions:

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*There is entirely too much focus on the Delta and the Core actions.

I agree that essentially all the conservation, improved water management activities (non structural), etc., must be addressed and especially those that can be implemented in a timely manner. But as I've stated many times before, they are not a solution in and of themselves. They can only be a necessary part of an overall comprehensive solution to the Basin's/State's environmental concerns and terribly unreliable water supply (both quality and quantity).

In many cases the Core actions are not clearly defined. For example, I received inadequate staff response to inquiries relating to Upper Sacramento River gravel replenishment as a part of the "upstream habitat restoration". Ron Ott has my comments on how that program could be accellerated in a efficient manner. And this is not dependent on a Delta fix.

*I perceived a basic lack of understanding on the part of staff and participants of the Sacramento River Hydrology and how the operations (of reservoirs) or modified operations does and can impact the various beneficial uses.)

Since most available water is North of the Delta and some of the cheapest and most environmentally benign storage sites are available there, that's where storage should be created. And stored water upstream can be used for a variety of environmental as well as other beneficial uses before it reaches the Delta; its restoration values are much greater. At the Delta it can then be used for flushing or, if still so-called surplus, it could be exported at the Delta Pumps.

I don't object to San Joaquin Valley offstream storage. It's needed, too; especially for reregulation. But water south of the Delta has no value north of the Delta and less value for the Delta.

Additional operational flexibility envisioned for Alt. 14 offers almost unlimited options for exchanges with most of the Sacramento Valley major users. And the two major underdeveloped ground water basins can be conveniently conjunctively operated with the whole system with assured replenishment capabilities provided by the additional storage and plumbing. With a pressure conduit across the Valley between Oroville and the Sites reservoir, water could go either way to serve almost any of the Butte Basin users, GCID, the T-C Canal, the wildlife refuges, the fisheries in Butte Creek and a discharge point on the Sacramento River for Delta outflows. Other river discharge points downstream along the west side conduit could be included if desired and would serve a purpose.

Just as one dramatic example of potential operational benefits of westside storage, I proved to my satisfaction that by serving about 2,000 cfs to the T-C and GCID users for 3 or 4 months (substituting Shasta storage) we could have operated Shasta Lake to near the 3MAF level during the 1975-77 drought. This would have assured adequate cold water for the winter run without the temperature control

structure and we would not have lost the 1976 and 1977 year classes of the run. During the '70's the run was on the order of 25,000 fish annually. The 3 or 4 year droughts similar to the one in the '70's could easily be covered with full supplies with a little additional storage. The deficiencies in 1977 were quite severe.

The Westside Conduit extending to either the Delta Pumps or the state Aqueduct not only could connect directly for exchange with all the Bay area aqueducts btu could furnish water (from storage) to the Sna Joaquin River for either fish or quality flushing down the San Joaquin River through the DMC. Exchanges of high quality water with Hetch Hetchy and East Bay aqueduct could provide the desired water for fish on the Mokelumne and Tuolumne Rivers. None of the other alternatives can fully accomplish this.

Alternate 15 is the ultimate contribution to a lot of environmental concerns. I'm pleased to see it on the table. But without a comprehensive description of its opportuniteis for enhancements, it is understandable that it was referred to as the "wildly ambitious". Those of us who worked on those "concepts" were driven by the continued discoveries of most fascinating opportunities to address all of the environmental concerns that we could identify.

Both alternates 14 and 15 are conducive to a staging or phasing of elements depending on the majority opinion on objectives and, of course, the limits of financial constraints.

With adequate additional storage in the proper place and a more extensive conduit system, project operational flexibility can be greatly enhanced. Conjuctive operations, exchanges, transfers and improved water quality all depend on it. As I pointed out to one of the ACWA committees a year ago when they were discussing problems with affecting exchanges, a San Francisco representative pointed to their success in power exchanges and I suggested that if the water industries had the transmission network similar to the power industry it would be easy.

Ron Ott asked me for assistance on these issues and I gave him 4 hours of intensive briefing and analysis of these concepts. An eight hour brainstorming session would be more appropriate and with more of the stakeholders.

As you pointed out, there is concern for the proper "Guarantees" or Commitments to the perceived benefits and the water, operations, and funding. That certainly is a legitimate concern. My only suggestion for consideration at this time is a continuing function at a lessor scale for the CALFED. I don't have the answer and I don't know who does. There has to be some sort of legislation and an "authority" with the powers to carry out the established objectives. That authority possibly could be granted to some revised form of CALFED. But frankly I would like to exclude the Feds.

Sites reservoir apparently is viewed as a reasonable upstream storage site. In my opinion it is unquestionably the best. But instead of 1-2 MAF it should be built to its maximum physical

capability. And that is about 3 MAF. The water is available to fill it and the geology/topography is suited for it.

That's the best I can do for now. Thanks for allowing my participation.

Sincerely,

Joseph E. Patten

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